UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

APR 2 0 2017

Mr. Aaron Rochester
Owner/President
Recycletronics
1304 46th Street
Sioux City, Iowa 51104

RCRA
561289

RE: Recycletronics: Prohibition Against Granulating and Mixing of CRT Glass
All Locations

Dear Mr. Rochester:

The United States Environmental Protection Agency has been notified by the Iowa Department of Natural Resources that you intend to begin crushing or granulating leaded and non-leaded glass in a granulator or by other means. During the December 2016 inspection of the Steuben Street facility, Rebecca Wenner explained that crushing leaded glass is a form of treatment[1] and cannot be done at any facility without first obtaining a Resource Conservation and Recovery Act permit issued pursuant to Section 3005 of RCRA and 40 CFR § 270. Ms. Wenner also explained that mixing unleaded glass (non-hazardous waste) and leaded glass (hazardous waste) together for the purposes of diluting the lead concentration is a form of treatment, for which a RCRA permit must be issued. The attached April 1, 2014, letter from the EPA to Global Environmental Services further explains the EPA's long-standing position regarding grinding and/or crushing of Cathode Ray Tube glass.

Finally, during the March 2017 inspections of the Steuben Street facility and the off-site storage facilities, Ms. Wenner and Mr. Michael Martin documented that the boxes you claim as non-leaded glass contain significant amounts of leaded glass. Based on this observation, further separation of the leaded from the non-leaded glass would have to occur before you could grind and/or crush the boxes you have identified as containing non-leaded glass.

Please note that if you begin grinding and/or crushing any leaded glass without an EPA permit, the EPA will consider that further non-compliance with RCRA. The EPA continues to reserve its right to pursue enforcement for violations of RCRA.

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[1] "Treatment" is defined as "any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume." 40 CFR § 260.10.

Please direct all questions to Rebecca Wenner, of my staff, at (913) 551-7644 or wenner.rebecca@epa.gov.

Sincerely,

Mary Goetz
Chief
Waste Enforcement and Materials Management Branch
Air and Waste Management Division

Enclosures (1)

cc: Amie Davidson, Supervisor, Contaminated Sites Section
Iowa Department of Natural Resources
Susan Johnson, Quality Bureau-Solid Waste, IDNR
Mr. Jeff Edwards, Nebraska Department of Environmental Quality

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 01 2014

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Mr. Kenny Gravitt
Global Environmental Services
109 Triport Road
Georgetown, KY 40324

Dear Mr. Gravitt:

Thank you for your letter dated January 10, 2014, asking a question about regulations applicable to electronics recycling. As I hope you know, ensuring that used electronics are properly and sustainably managed is a high priority for the Environmental Protection Agency. Towards that end, together with other federal agencies, we are implementing the National Strategy for Electronics Stewardship (NSES) which emphasizes increasing safe and effective management of used electronics. Our work in this area includes encouraging the use of electronics recyclers who are certified to an accredited management standard, and encouraging recyclers to become certified. I was pleased to find that your company, Global Environmental Services (GES), has achieved several of these certifications. Thank you for the effort you have put into this important third-party certification process.

Your letter asks a specific question about how the Resource Conservation and Recovery Act (RCRA) regulations may apply to GES' Glass Remediation Process. We have reviewed your letter, along with supplemental information provided by your colleague, Mr. Chuck Ladreville.

Under the federal RCRA regulations at 40 CFR 261.4(a)(22), used, intact cathode ray tubes (CRTs): (1) are not solid wastes within the United States, unless they are disposed, or are speculatively accumulated as defined in § 261.1(c)(8) or (2) are not solid wastes when exported for recycling provided they meet the requirements of § 261.40. Used, broken CRTs are not solid wastes provided that they meet the requirements of § 261.39, which include conditions for managing CRTs, such as storage and labeling standards. Additionally, used, broken CRTs are subject to the speculative accumulation provision at § 261.1(c)(8) and, if used in a manner constituting disposal, must comply with the applicable requirements of part 266, subpart C (see § 261.39(a)(4)). Additionally, under § 261.39(d), glass from used CRTs that is used in a manner constituting disposal must comply with the requirements of 40 CFR part 266, subpart C.

Regarding the used CRTs, because GES is recycling used CRTs, the regulations at §§ 261.4(a)(22) and 261.39 would apply to the management of the used CRTs prior to and during processing.

Regarding the processed CRT glass, while the Agency supports the development of technologies that can legitimately recycle CRT glass in a manner protective of human health and the environment, the existing CRT exclusion at 40 CFR 261.39(c) only applies to processed CRT glass sent for recycling to a

CRT glass manufacturer or a lead smelter and thus, because GES will use a mechanical process to recycle the CRT glass into lead and silica sand, this provision does not apply to GES. Instead, GES may recycle the hazardous CRT glass in an on-site hazardous waste generator accumulation unit (e.g., containment building or tank) without a hazardous waste permit provided they are in compliance with the applicable hazardous waste generator requirements in 40 CFR 262.34, and provided that the treatment is not thermal treatment (RO 13553, 51 FR 10168). Otherwise, treatment of the hazardous CRT glass is subject to the hazardous waste requirements of 40 CFR parts 264 and 265, and the hazardous waste permitting requirements of part 270.

Furthermore, the lead and silica sand products, according to emails from Mr. Landreville, "will be sold as their basic elements (i.e., sand for concrete/construction and lead for containment, other)." The regulations at 40 CFR part 266, subpart C would apply because EPA considers the silica sand to be a recycled material used in a manner constituting disposal when the sand is applied to or placed on the land or used in foundations or other land placement activities. These regulations require that the product of the recycling (i.e., silica sand) meet the applicable land disposal restriction (LDR) treatment standards in subpart D of part 268 prior to placing the material on the land.

Lastly, under the RCRA regulations, all recycling must be legitimate recycling, which means that the generator of the hazardous secondary material (in this case, CRT glass) must consider whether the material provides a useful contribution to the recycled product or recycling process, whether the product of the recycling is valuable, whether the hazardous secondary material is managed as a valuable commodity, and whether the product of the recycling contains "toxics along for the ride." For more information on EPA's legitimacy standard, please see the "*Revisions to the Definition of Solid Waste Final Rule Compilations: The History of Legitimate Recycling*" at http://www.epa.gov/epawaste/hazard/dsw/downloads/history-legit-recycling.pdf.

Please note that the federal exclusion for used CRTs and CRT glass at § 261.4(a)(22) may not be in effect in all states. This is because states that are authorized to implement the RCRA regulations may be more stringent than the federal regulations. Therefore, I encourage you to check with your state regarding any state-specific regulations that may apply.

If you have any further questions or discuss this matter further, please feel free to contact Amanda Kohler of my staff at kohler.amanda@epa.gov or 703-347-8975.

Sincerely,

Barnes Johnson

Barnes Johnson, Director
Office of Resource Conservation and Recovery